

360 X D S N P R G V S A Y L S R P S P F D X L F I R K S P T I T β-strand A loop AB β-strand B
 (SEQ ID NO:1) 1,7 8

390 C L V V D L A P S K G T V N L T W S R X A S X X G K P V N H β-strand C loop CD
 2 9 3

420 S T R K E E K Q R X N X X G T L T V T S T L P V G T R D W I β-strand D loop DE β-strand E loop EF
 6 10 4

450 E G E T Y Q C R V T H P H L P R A L X M R S T T K T S G P β-strand F loop FG β-strand G
 11 FIG.1 5 12

MaE11 Light Chain (SEQ ID NO:2)

DIVLTQSPASLAVSLGQRATISCKASQSVDDYDGDSYMNWYQQKPGQPILLIYAASYLG
SEIPARFSGSGSGTDFTLNHPVEEEDAATFYCQQSHEDPYTFGAGTKLEIK

MaE11 Heavy Chain (SEQ ID NO:3)

DVQLQESGPGLVKPSQSLSLACSVTGYSITSGYSWNWIRQFPGNKLEWMGSITYDGSS
NYNPSLKNRISVTRDTSQNQFFLKLNSATAEDTATYYCARGSHYFGHWHFAVWGAGTTVT
VSSAKTTPPSVYPLAR

Mae13 Light Chain (SEQ ID NO:4)

DIVMTQSQKFMSTSVGDRVSVTCKASQNVSSNVAWYQQKPGQSPKALIYSASYRYS
PDRFTGSGSGTDFTLTISNVQSEDLAEYFCQQYYTYPLYTFGGGKLEIKRADAAPTVSI
FPPSTR

Mae13 Heavy Chain (SEQ ID NO:5)

DVQLQESGPGLVKPSQSLSLTCTVTGYTITSDNAWNWIRQFPGNKLEWMGYINHSGTT
SYNPSLKSRISITRDTSKNQFFLQLNSVTTEDTATYYCAWVVAYAMDYWGQTSVTVSSA
KTPPSVYPLAR

Mae15 Light Chain (SEQ ID NO:6)

DIQLTQSPASLAVSLGQRATISCKASQSVDDYDGDSYMNWYQQKPGQPPKLLIYAASNLES
GIPARFSGSGSGTDFTLNHPVEEEDAATYYCQQSNEDPFTFGAGT

Mae15 Heavy Chain (SEQ ID NO:7)

DVQHQESEPDLVKPSQSLSLTCTVTGYTITSGYNRHWIRQFPGNKLEWMGYIHYSGST
NYNPSLKRISITRDTSKNQFFLQLNSVTTEDTATYYCARGSIYYYGSRYRYFDVWGAGT
TVTVSSAKRHPHLSIHWPG

FIG. 2

Humanized MaE11 Version 1 (intact IgG)

Heavy Chain (SEQ ID NO:8)

EVQLVESGGGLVQPGGSLRLSCAVSGYSITSGYSWNWIRQAPGKGLEWVASITYDGSTNY
ADSVKGRFTISRDDSKNTFYLQMNSLRAEDTAVYYCARGSHYFGHWHFAVWGQGLTVTVS
SASTKGKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVL
QSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPEL
LGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREE
QYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPS
REEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDK
SRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

Light Chain (SEQ ID NO:9)

DIQLTQSPSSLSASVGDRTITCRASQSVDDYDGDSYMNWYQQKPGKAPKLLIYAASYLES
GVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQSHEDPYTFGGGTKVEIKRTVAAPSVF
IFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSSTYSLS
STLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIG.3

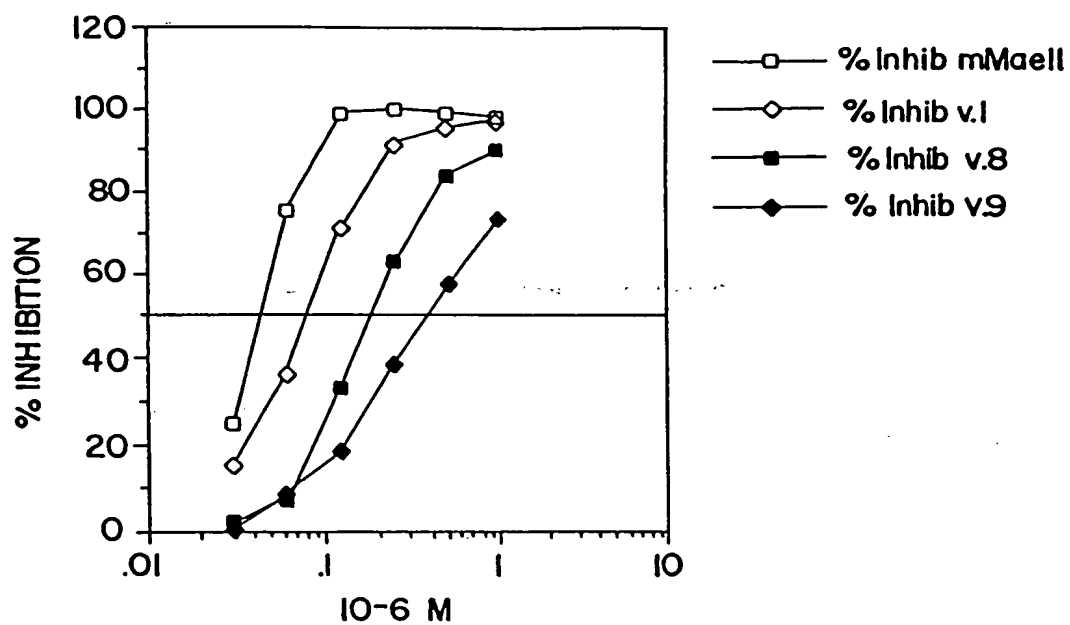


FIG.4a

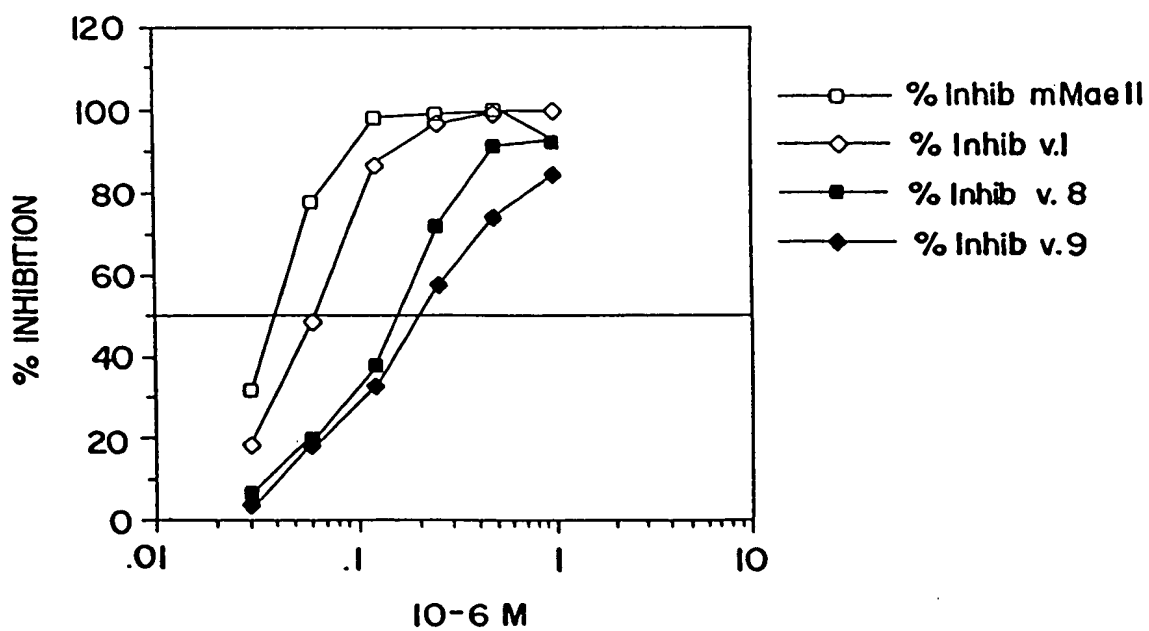


FIG.4b

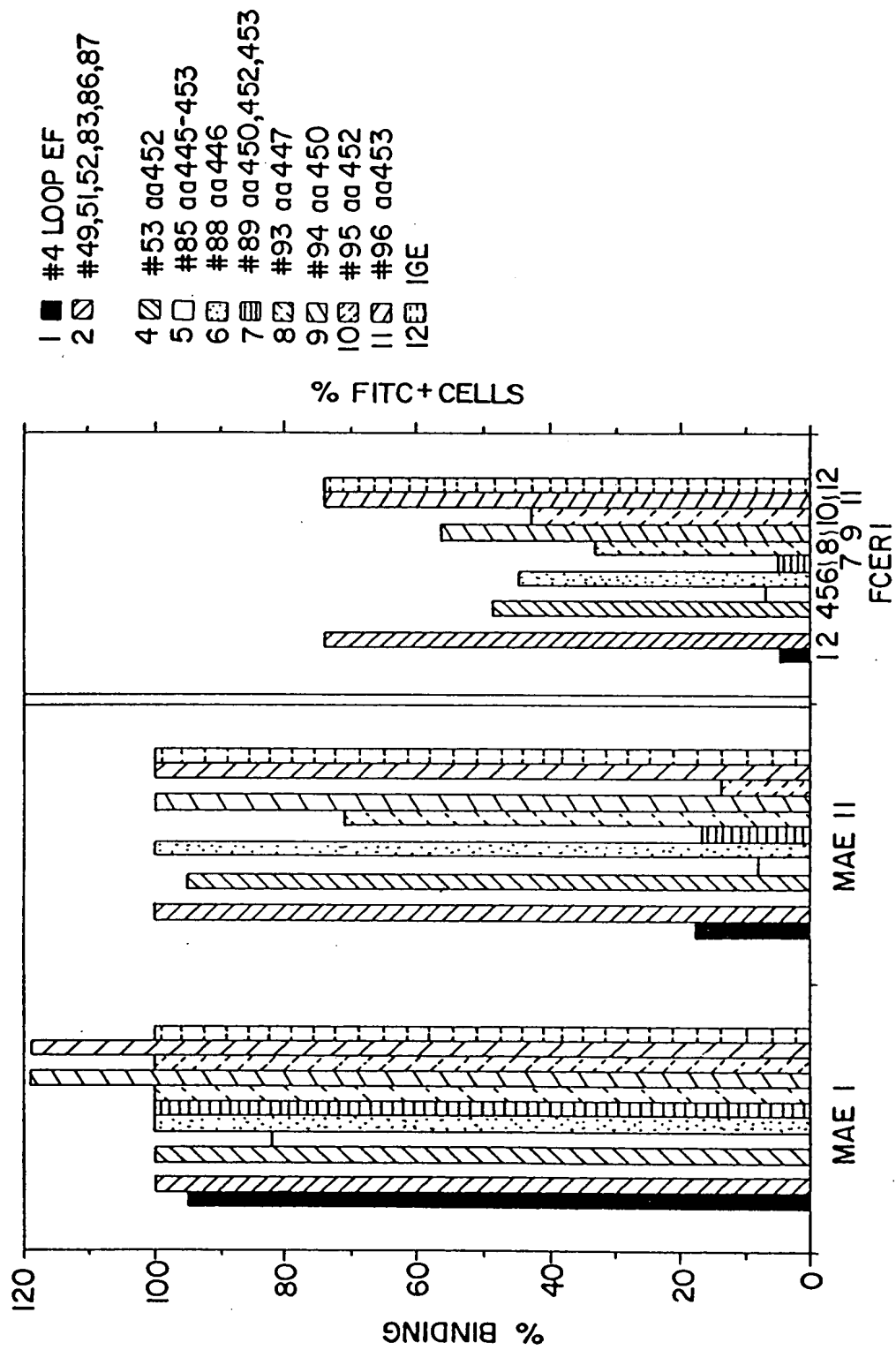


FIG.5a

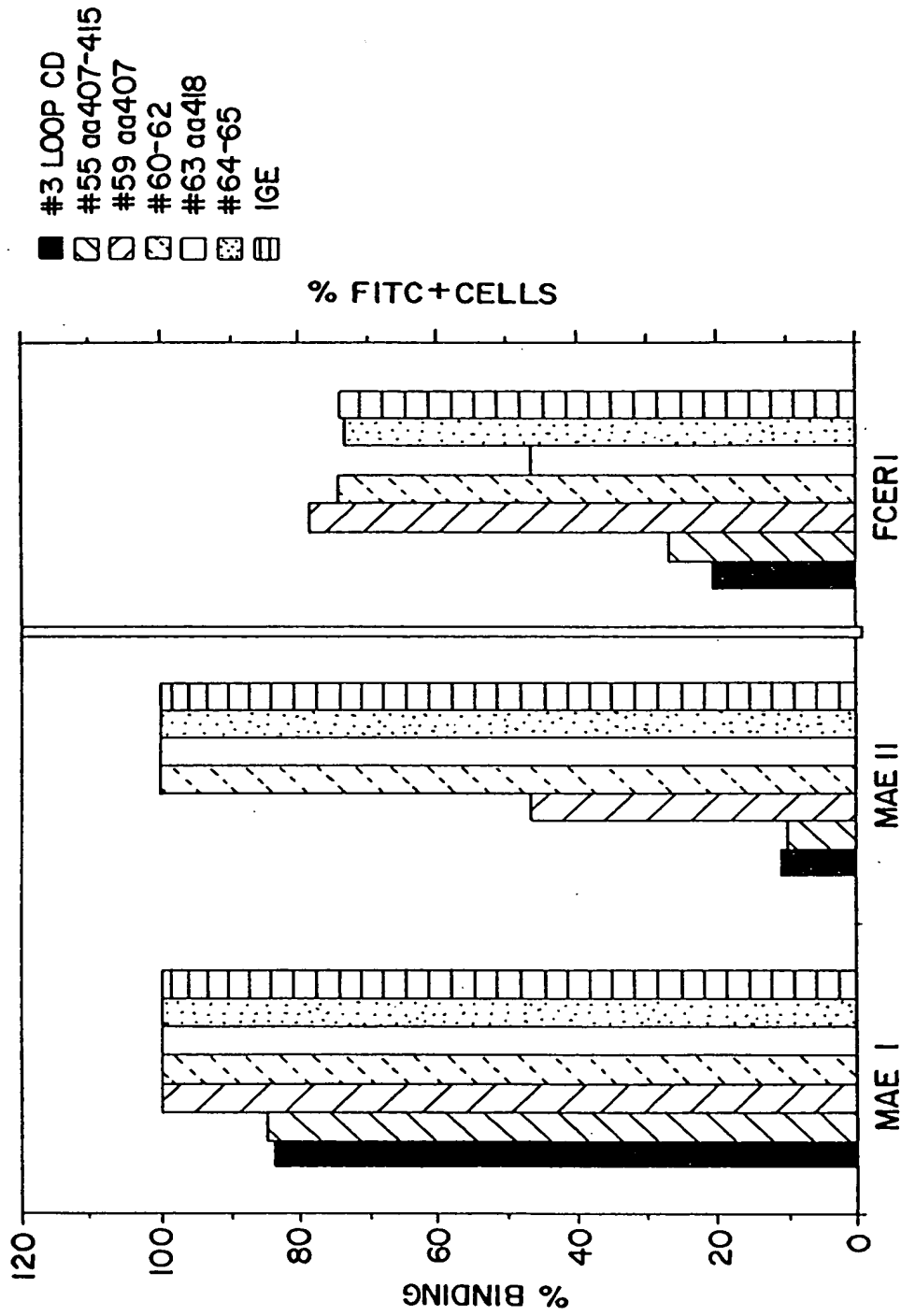


FIG.5b

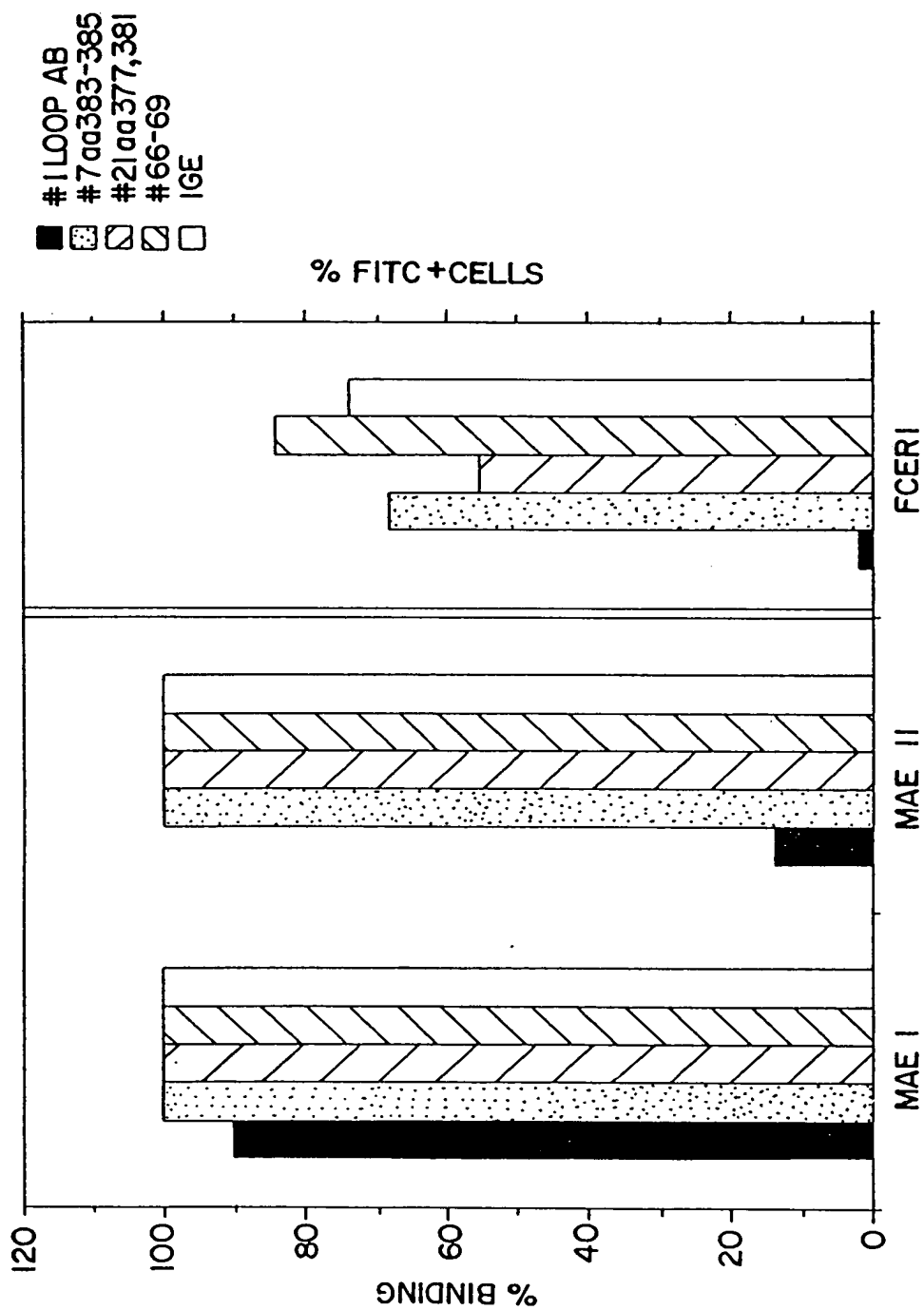


FIG.5C